Abstract

A phosphoramidite method for the synthesis of a nucleic acid oligomer without protecting the base moiety characterized in that a 3' or 5' hydroxyl group of a nucleotide is reacted with a nucleoside phosphoramidite, a cyclonucleoside phosphoramidite, a 2'-substituted nucleoside phosphoramidite, a 4'-substituted nucleoside phosphoramidite, or a 2',4'-di-substituted nucleoside phosphoramidite to produce a phosphodiester linkage. The phosphoramidite is contacted with an activator containing both a) hydroxybenzotriazole-1-ol (HOBt), a mono-substituted HOBt, a di-substituted HOBt, or a di-substituted phenol and b) imidazole, tetrazole, benzimidazoletriflate (BIT), 4-ethylthiotetrazole, imidazolium triflate(trifluoromethane sulfonate) or 4,5-dicyanoimidazole.